

### ACTIVITY 1 - KEY SAFETY TIPS FOR THE FABRICATION LAB

Draw a line to match the safety tip with its explanation



Wear the right safety gear



Clean up as you go



Correctly use the right tool for the job



Always wear appropriate covered footwear



No kids under 12. Sorry!



Ask questions if you have any doubts

### EXPLANATION

It's there for your protection

It's easy to ask and you could prevent an injury

They protect your feet & help prevent slipping

Most injuries come from misusing tools

There is hazardous equipment & substances used in the Fabrication Lab

Accidents happen in untidy spaces

NAME:

DATE:

The aim of The Edge Resource Inductions are to ensure that patrons are equipped with practical skills and knowledge to safely access the range of tools available for public use in the Fabrication Lab. In each of these inductions, an Edge Facilitator will deliver training on the safe and appropriate use of equipment.

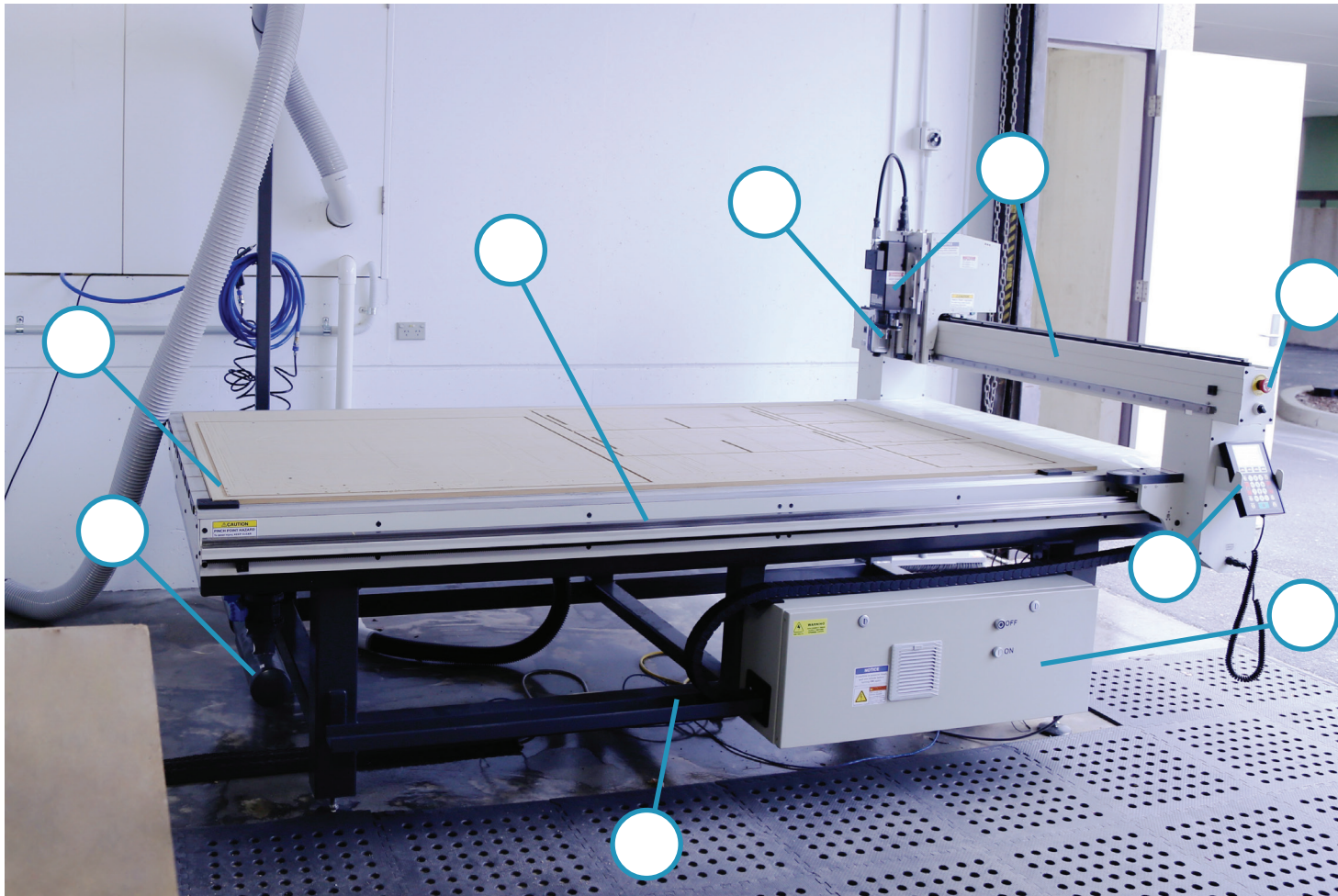
The following form serves as a record of your participation, and provides evidence to demonstrate your competent understanding and practical application of the training.

The assessment evidence collected in this Induction will be in three forms: Written Assessment, Peer Assessment (Verbal), and Workshop Facilitator Observations.

If you require any extra assistance to complete this induction please inform your facilitator at the beginning of the session.

### ACTIVITY 2 - IDENTIFY CNC COMPONENTS

Using the list of components on the right, identify each part by writing the number in the relevant circle.

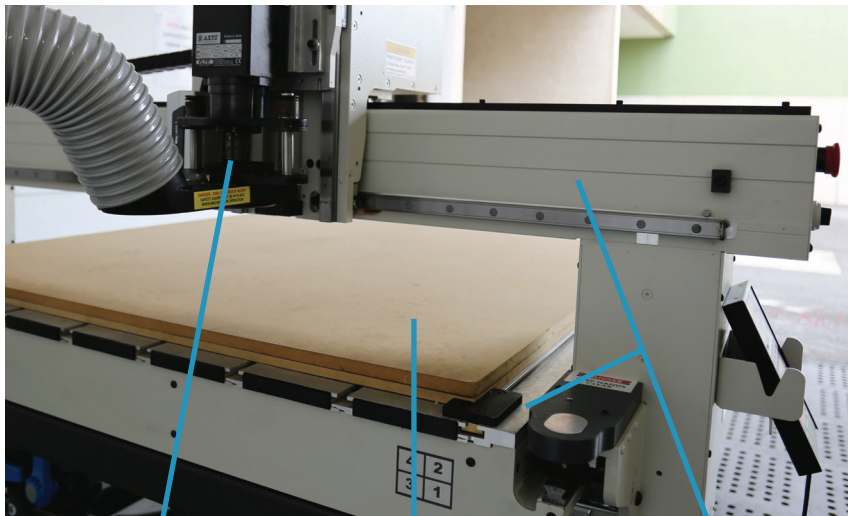


### COMPONENTS

- ① Vacuum Bed
- ② Travelling Steel Gantry contains x axis
- ③ Machine Head contains y and z axis
- ④ Location of cutting spindles
- ⑤ Operators Console
- ⑥ Inverter enclosure - High Voltage  
A2MC Controller Enclosure - High Voltage  
Power Box Master ON/OFF - High Voltage
- ⑦ Machine Frame
- ⑧ Air Supply for Vacuum pressure gauges
- ⑨ Emergency Stop

### ACTIVITY 3 - IDENTIFY CNC COMPONENTS

Using the list of components and tools on the right, identify each part by writing the number in the relevant circle.



### COMPONENTS & TOOLS

- ① x and y axis gantry rails - check for dust and debris
- ② Waste board- check over waste board for flatness. Use scour pad to clean
- ③ Threaded Spindle- check spindle for corrosion/rust and clean with steel wool
- ④ Collet
- ⑤ Collet Nut
- ⑥ Collet Wrenches
- ⑦ Routing Bit

### ACTIVITY 4 - CNC WORKFLOW

We've identified the key stages in the CNC process. Each stage is listed below. Put each step in the correct order, by placing a number in the corresponding circle.

#### 1. PREPARE YOUR DESIGN

- Send file to output and save
- Import to Enroute
- Set up orientation and create a tool path
- Open Multicam app manager and send file to machine
- Design your model and save as .dxf (can also import .ai and some CAD file types)

#### 2. PREPARE THE CNC

- Load material onto bed and clamp accordingly (vacuum, screw)
- Press 'Start' and observe until cutting is complete
- Open file on the CNC control
- Install and qualify required tool
- Turn on dust extractor

### ACTIVITY 5 - SAFETY

Draw a line to match the tips with either a do or a don't.



**DO'S**



**DONT'S**

#### TIP

Check tooling before use

Wear personal protective equipment when operating

Lift heavy material by yourself

Leave machine unattended

Check over your tool paths of your design before cutting

Overtighten tooling

Lean on Machine when it's operating

### PEER ASSESSMENT

I confirm that the observations of my peer showed active participation in this induction workshop and demonstrated a satisfactory understanding, including competent and safe use of the above tools.

Date

Peer Assessor

Peer Assessor Signature

### FACILITATOR WORKSHOP OBSERVATION

I confirm that the observations made of the participant and active participation in this induction workshop demonstrated a satisfactory understanding, including competent and safe use of the CNC router.

Date

Edge Facilitator

Facilitator Signature

### PARTICIPANT DECLARATION

I declare the assessment above was my own individual work.

Date

Participant Signature